



C14-AEI-604

4708

BOARD DIPLOMA EXAMINATION, (C-14)

OCT/NOV—2018

DAEIE—SIXTH SEMESTER EXAMINATION

INSTRUMENTATION IN PROCESS INDUSTRIES

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

Instructions : (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. List three power generation methods.
2. Give the principle of power generation in thermal power plant.
3. List any three units in petrochemical plant.
4. List any three byproducts.
5. Define catalytic cracking.
6. List various physical parameters to be measured in iron and steel plant.
7. Give any three furnaces used in iron and steel plant.
8. Mention any three physical properties of paper.
9. List three grades of paper.
10. Write any three control system units in pulp and paper plant.

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PART—B

10×5=50

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Explain the process of generation in thermal power plant with diagram.

12. Explain the following measurements :

(a) Water level in the boiler

(b) Temperature measurement of the boiler

13. (a) State the importance of measurement and instrumentation in power plant. 5

(b) Explain the working of turbine unit. 5

14. Draw and explain the working of distillation column.

15. Explain the working of oxygen furnace with diagram.

16. Explain the following :

(a) Process of making raw material with diagram

(b) Molten metal level measurements with diagram

17. Explain the basic process of making the paper based on the layout.

* **18.** (a) Explain the graphic displays and alarms in paper and pulp plant.

(b) Explain the measurement of paper thickness.
